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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,242	07/18/2003	Michael G. Frazier	VI/99-024.D	3127

7590 06/15/2006
Gregory L. Bradley
Medrad, Inc.
One Medrad Drive
Indianola, PA 15051

EXAMINER

KISH, JAMES M

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/622,242	Applicant(s) FRAZIER ET AL.	
	Examiner James Kish	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-16, and 19 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 13, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/18/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/18/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 13 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 13 states that "the first communication unit is positioned within a shielded housing." Claim 12 (its parent claim) states, "a first communication unit positioned within a shielded housing..."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 8-9, 12-15 and 19 rejected under 35 U.S.C. 102(b) as being anticipated by Uber, III et al. (US Patent No. 5,494,036). Uber discloses a system with an improved communication link between an externally located system controller and the injection head control unit which is located within the electromagnetic isolation barrier of the magnetic imaging suite (column 1, lines 15-20, also see column 2, lines 53-59). The communication link is made through a window in the isolation room barrier. The link consists of electromagnetic transceivers positioned on either side of the viewing window (column 2, lines 60-67 and column 3, lines 60-65). Infrared or

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electromagnetic energy, or fiber optics is among the list of usable communication formats (column 3, lines 2-6). The injection control unit is contained within an electromagnetic shield to prevent the undesired electromagnetic radiation generated by the electric motors from interfering with the magnetic field used in the MRI device (column 4, lines 5-10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-3, 10-11 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Uber, III et al. in view of Kormos et al. (US Patent No. 6,198,285). Uber discloses a system with an improved communication link between an externally located system controller and the injection head control unit which is located within the electromagnetic isolation barrier of the magnetic imaging suite (column 1, lines 15-20, also see column 2, lines 53-59). While Uber discloses using electromagnetic energy as the communication link, there is no limit on the range. Kormos teaches the use of a properly filtered RF remote control where the RF control signal produced is established outside a range, which might affect the MRI scanner (column 8, lines 44-51). For any

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instance where the MR device produces RF pulses below 1 GHz, it would be obvious to one skilled in the art to use a 1 GHz or greater transmission frequency, thereby falling outside of a range that would affect the MRI scanner. It would have been obvious to one having ordinary skill in the art at the time the invention was made to limit the use of RF control signals as taught by Kormos in the system disclosed by Uber in order to not disturb the imaging process.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uber, III et al. in view of Stormont et al. (US Patent No. 4,737,712). Uber discloses a system with an improved communication link between an externally located system controller and the injection head control unit which is located within the electromagnetic isolation barrier of the magnetic imaging suite (column 1, lines 15-20, also see column 2, lines 53-59). While Uber discloses using multiple formats as the communication link, ultrasonic energy is not discussed. Stormont shows in Figure 3 the use of ultrasonic energy being transmitted through air from a controlling circuit to a remotely located device. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use ultrasonic energy to transmit a signal as taught by Stormont as an alternative to the other methods discussed by Uber because ultrasonic energy would not disrupt the imaging process.

Allowable Subject Matter

5. Claims 6-7, and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Kish whose telephone number is 571-272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMK


BRIAN L. CASLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3737